

irradiating at least said gap with an electron beam from electron emitting means disposed apart from said first and second electrically conductive members, within an atmosphere containing a carbon compound; and

applying a voltage to said first and second electrically conductive members.

Cont.  
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13

16. (New) A manufacturing method of an electron-emitting device, comprising the steps of:

disposing an electrically conductive member having a gap, on a substrate;

irradiating at least said gap with an electron beam from electron emitting means disposed apart from said electrically conductive member, within an atmosphere containing a carbon compound; and

applying a voltage to said electrically conductive member.

14

17. (New) A manufacturing method of an electron-emitting device, comprising the steps of:

disposing a first electrically conductive member and a second electrically conductive member so as to form a gap therebetween, on a substrate;

irradiating at least said gap with an electron beam from electron-emitting means disposed apart from said first and second electrically conductive members, within an atmosphere containing a carbon compound; and

applying a voltage to said first and second electrically conductive members, within the atmosphere containing the carbon compound.

15  
18. (New) A manufacturing method of an electron-emitting device, comprising the steps of:

disposing an electrically conductive member having a gap, on a substrate;

irradiating at least said gap with an electron beam from electron emitting means disposed apart from said electrically conductive member, within an atmosphere containing a carbon compound; and

applying a voltage to said electrically conductive member, within the atmosphere containing the carbon compound.—

#### REMARKS

Claims 1-11 and 15-18 are now pending in this application.<sup>1</sup>

Claims 15-18 have been added to provide Applicants with a more complete scope of protection.

<sup>1/</sup> Claims 1-11 were allowed in the Notice of Allowance dated December 4, 2001.